

ND-SMAC

North Dakota - State Mapping Advisory Committee

Elroy Kadrmas: 701-328-8003; 600 E. Boulevard Avenue, Bismarck, ND 58505-0840

SMAC ANNUAL MEETING

September 1, 2009, 10:00 a.m. – 12:00 p.m.

DMR Conference Room, Abaco Building, 1016 E. Calgary Avenue, Bismarck, ND 58503

In attendance:

Bruce Beechie	ND Public Service Commission
Levi Erdmann	ND Land Department
Keith Johnson	Midwest Testing Laboratory, Inc.
Steve Kranich	ND Geological Survey (non-member)
Ron Luethe	Natural Resources Conservation Service
Lorraine Manz	ND Geological Survey (NDGS Statemap Coordinator)
Corinne Walter	US Bureau of Land Management

Not in attendance:

Dr. Allan Ashworth	ND State University
Rod Bassler	ND State Water Commission
Brian Bieber	ND Department of Transportation
Girish Budhwar	ND Department of Public Instruction
Chris Dirk	ND Parks and Recreation Department
Ann Fritz	ND Department of Health
Brian Hosek	ND Game & Fish Department
Chris Laveau	US Geological Survey
Dr. Rich LeFever	University of North Dakota
Aaron Norby	Kadrmas, Lee & Jackson
Todd Norton	Advanced Engineering and Environmental Services, Inc.
Bob Nutsch	ND Information Technology Department
Tim Penfield	Houston Engineering, Inc.
Jeff Quast	ND Department of Commerce
Larry Ruebel	ND Division of Emergency Management
Brad Schneider	Braun Intertec Corporation
Rachael Seifert	ND Department of Agriculture
Dr. John Webster	Minot State University

MINUTES

Elroy Kadrmas opened the meeting. A short introduction was given and attending members of the committee introduced themselves. Lorraine Manz then followed with a presentation of the STATEMAP project for FY0911.

STATEMAP

LM outlined the current status of the STATEMAP program. \$32,947 in federal funds was requested for FY0910 and \$21,057 was awarded, leading to the decision to cut the number of deliverables for this year's program from four to two. The Thompson and Bygland quadrangles in the Grand Forks area (Fred Anderson) were dropped leaving the two proposed Rugby area quadrangles (Rugby and Tunbridge) (Lorraine Manz) scheduled for completion in 2010.

An additional \$5,000 in STATEMAP funds was awarded in April after budget constraints in other states forced some state geological surveys to accept less than their awarded amount. Reassignment of Fred Anderson to other projects in the meantime, however, meant that it would not be possible to reinstate the Grand Forks area quadrangles. Nevertheless, the additional funding will allow him to assist with the mapping in the Rugby area, particularly with the use of the Giddings probe.

The federal funding limit for the 2009-2011 biennium is already almost fully encumbered. Consequently, there are no plans to submit a STATEMAP proposal for FY1011. Surface mapping will nevertheless continue but outside the time constraints imposed by the STATEMAP program.

STATEMAP-funded geologic maps already published can be downloaded at:
<https://www.dmr.nd.gov/ndgs/surfacegeo/surfacemaps.asp>

NON-STATEMAP

The STATEMAP discussion was followed by an outline of other ongoing mapping projects at the North Dakota Geological Survey.

Deep Geothermal:

LM also briefly reviewed the progress on deep geothermal mapping, adding that the next map series, due for publication at the end of the year, will be based on the Bottineau 100k sheet.

Surface Geology

The NDGS has published 136 surface geologic maps, some STATEMAP-funded (100k Killdeer sheet and 135 24k sheets). Two more 100K maps (Cavalier and Grafton) and seven 24k maps that will complete a nine-map set of the Bismarck/Mandan area are in the queue for publication.

Surface geologic maps (1:48,000-scale) for five metro areas (Bismarck/Mandan, Devils Lake, Dickinson, Jamestown, and Minot) have been published. Similar maps are planned for Fargo/West Fargo, Grand Forks, Rugby, Valley City, Watford City, and Williston.

Levi Erdmann, State Land Department, inquired which published 24k surface geology maps were most requested. Elroy Kadrmas stated it really depends on what is the major point of interest in the state at any given time and which published 24k quadrangles are in these int

For more information go to: https://www.dmr.nd.gov/ndgs/Publication_List/geoinvest.asp

Lignite Reserves

Nineteen 100k sheets depict Lignite Reserves, all have now been published.

On the 24k scale, 286 maps have been published

Discussed the criteria for recoverable lignite reserves.

Published maps are available for download at: <https://www.dmr.nd.gov/ndgs/Coalmaps/coalmaps.asp>

Landslides

Six 100k sheets depict Areas of Landslides, all have now been published.

Twelve 100k sheets are priority for mapping.

On the 24k scale:

5 maps have been published.

129 maps are in press.

52-24k quadrangles with landslides have been published as surface geology maps.

Published maps are available for download at: <https://www.dmr.nd.gov/ndgs/landslidesnew.asp>

Uranium

Work on North Dakota's uranium resources continues, but there have been no new publications this year.

For more information and to download published quadrangles go to:

<https://www.dmr.nd.gov/ndgs/uraniummaps/uraniummaps.asp>

Volcanic Ash

No further progress.

Published quadrangles can be downloaded at: <https://www.dmr.nd.gov/ndgs/Volcanic/volcanic.asp>

Oil & Gas Studies/ Subsurface Geology

Subsurface geology maps are mainly published under the Geologic Investigations Series. Not all are available for download. For more information go to:

https://www.dmr.nd.gov/ndgs/Publication_List/geoinvest.asp

Lineament Studies

Two 250k areas are under study, the Parshall area and the Dickinson 25k sheet. Lineaments are delineated from four sources; historical data, shaded relief, NAIP Imagery and Landsat data.

Levi Erdmann, State Land Department, asked for an explanation of lineaments. Lorraine Manz and Elroy Kadrmas discussed this.

Shallow Gas field screening

Eighteen 1:150,000-scale county maps depicting the results of shallow gas field screening analyses have been published. Thirty-three more are in progress. Two maps have also been published on the 100k scale, based on the Bottineau and Mohall sheets). For more information and to download published maps go to <https://www.dmr.nd.gov/ndgs/shallowgas/sgasrecent.asp>

Bakken Formation/Three Forks Formation

Several map sets depicting the structure, lithology, oil-generating potential, and geochemistry of the Bakken Formation have been published, GI 45, GI 59, GI 61 and GI 63. A map of the Three Forks Formation, which is conformably overlain by the Bakken Formation and is also oil-bearing, has been published, GI 64.

This year three other maps/x-sections, GI 75, GI 76, and GI 79, have been published.

Further investigations into these formations have been on going, for a complete summary go to:

<https://www.dmr.nd.gov/ndgs/bakken/bakkenthree.asp>

North Dakota Land Department Lease Sales

The North Dakota Geological Survey continues to publish, with data from the North Dakota Land Department, the quarterly lease sales of state lands for oil and gas exploration.

NON-NDGS

For information on NAIP, DEMS, GIS and other information to the North Dakota GIS HUB:

<https://www.state.nd.us/gis/>

Ron Luethe, Natural Resource Conservation Service, discussed the 2009 1-meter NAIP.

To get on the GIS E-mail list:

<http://www.nd.gov/gis/contact/email/>

GIS Users Conference:

2009 NDGIS Conference:

UND – Grand Forks

November 2-4, 2009

<http://www.nd.gov/gis>

Elroy Kadrmas

SMAC Committee Co-Chair

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